

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-9 (Canceled).

Claim 10 (Currently Amended): A bicycle headlamp comprising:

a rotor comprising a plurality of magnet plates attached to spokes of a bicycle wheel along the circumference of the wheel, each magnet plate having a form of an arc of a certain circle and comprising a plurality of magnets disposed at regular circumferential spacings with alternating south and north poles;

a stator comprising a power-generating coil comprising a coil and an iron core disposed in a fixed position to face the magnetic pole faces of the magnet plates of the rotor; and

a case separated from the stator, or for containing ~~a part~~ all of the stator, wherein the case contains at least a headlamp electrical circuit comprising a resonance circuit formed of the power-generating coil of the stator and a capacitor connected in series with the power-generating coil, ~~for establishing resonance at~~ and having, as a resonant frequency, a power-generation frequency synchronized with a certain relative speed of determined by the positions where the magnets and the power-generating coil are disposed, when the bicycle is pedaled at a predetermined speed, and a ~~DC power~~ rectifying and smoothing circuit for rectifying, smoothing, and outputting electric power obtained from the power-generating coil of the resonance circuit, a light-emitting diode that is lit by the electric power supplied from the headlamp electrical circuit, and a condenser lens for focusing light emitted from the light-emitting diode in front of the bicycle and for illuminating the roadway.

Claim 11 (Previously Presented): A bicycle headlamp according to Claim 10, wherein the stator comprises the magnet plates attached to the spokes of the bicycle along the circumference of the wheel, in a continuous ring shape or in separate positions.

Claim 12 (Previously Presented): A bicycle headlamp according to Claim 10, wherein the light-emitting diode is a white light-emitting diode with a luminous intensity of 2 cd or higher, and the lens has a focal length such that a certain level of illumination is ensured at a specified distance.

Claim 13 (Previously Presented): A bicycle headlamp according to Claim 10, wherein a plurality of light-emitting diodes are used; the lens is a dome-shaped lens disposed for each of the light-emitting diodes, the dome-shaped lens having a curvature, a diameter, and a thickness calculated to obtain a specified level of illumination in a specified circle at a specified distance by focusing light; and a reflector is provided on a flat-plate portion above the lens, by applying a treatment for producing diffused reflection, so that approaching of the bicycle can be noticed ahead of the bicycle.

Claim 14 (Previously Presented): A bicycle headlamp according to Claim 10, wherein the stator, comprising the power-generating coil, the headlamp electrical circuit, the light-emitting diode, and the condenser lens are contained in the case as a unit.

Claim 15 (Previously Presented): A bicycle headlamp according to Claim 11, wherein the stator, comprising the power-generating coil, the headlamp electrical circuit, the light-emitting diode, and the condenser lens are contained in the case as a unit.

Claim 16 (Previously Presented): A bicycle headlamp according to Claim 12, wherein the stator, comprising the power-generating coil, the headlamp electrical circuit, the light-emitting diode, and the condenser lens are contained in the case as a unit.

Claim 17 (Previously Presented): A bicycle headlamp according to Claim 13, wherein the stator, comprising the power-generating coil, the headlamp electrical circuit, the light-emitting diode, and the condenser lens are contained in the case as a unit.

Claim 18 (Previously Presented): A bicycle headlamp according to Claim 10, wherein the headlamp electrical circuit, the light-emitting diode, and the condenser lens are contained in the case; and the stator, comprising the power-generating coil, is separately disposed outside the case.

Claim 19 (Previously Presented): A bicycle headlamp according to Claim 11, wherein the headlamp electrical circuit, the light-emitting diode, and the condenser lens are contained in the case; and the stator, comprising the power-generating coil, is separately disposed outside the case.

Claim 20 (Previously Presented): A bicycle headlamp according to Claim 12, wherein the headlamp electrical circuit, the light-emitting diode, and the condenser lens are contained in the case; and the stator, comprising the power-generating coil, is separately disposed outside the case.

Claim 21 (Previously Presented): A bicycle headlamp according to Claim 13, wherein the headlamp electrical circuit, the light-emitting diode, and the condenser lens are contained

in the case; and the stator, comprising the power-generating coil, is separately disposed outside the case.

Claim 22 (Currently Amended): A bicycle headlamp electrical circuit comprising:  
a resonance circuit ~~for establishing resonance at a frequency synchronized with a certain relative speed between magnets and a power-generating coil of a stator, obtained when a bicycle is pedaled at a predetermined standard speed, the resonance circuit~~  
comprising ~~the~~ a power-generating coil of the a stator, said stator including a coil and an iron core disposed in a fixed position to face magnetic pole faces of a plurality of magnet plates of a rotor, said rotor including the plurality of magnet plates attached to spokes of a bicycle wheel along the circumference of the wheel, each magnet plate having the form of an arc of a certain circle and comprising a plurality of magnets disposed at regular circumferential spacings with alternating south and north poles, and a capacitor connected in series with the power-generating coil, and having, as a resonant frequency, a power generation frequency determined by the positions where the magnets and the power-generating coil are disposed, when the bicycle is pedaled at a predetermined speed; and  
a ~~DC power~~ rectifying and smoothing circuit for rectifying and smoothing electric power obtained from the power-generating coil of the resonance circuit and for supplying the electric power to the light-emitting diode.

Claim 23 (Currently Amended): A bicycle headlamp electrical circuit according to Claim 22, wherein the DC power circuit comprises: a dc-dc converter for rectifying electric power obtained from the power-generating coil of the resonance circuit by a diode and for smoothing out the electric power by a smoothing capacitor; and a constant-current circuit

comprising at least two transistors, two resistors, and a capacitor, for receiving a direct current from the dc-dc converter and supplying a constant current to the light-emitting diode.

Claim 24 (Currently Amended): A bicycle headlamp electrical circuit according to Claim 22, wherein a light sensor ~~and/or~~ and a manual switch ~~[[is]]~~ are connected to the constant-current circuit; and

the constant-current circuit is configured to allow or interrupt current supply to the light-emitting diode in accordance with a ~~sense~~ signal from the light sensor, ~~is configured and~~ to allow or interrupt current supply to the light-emitting diode in accordance with an on/off signal from the manual switch, ~~or is configured to allow or interrupt current supply to the light-emitting diode in accordance with either or both of a signal from the light sensor and a signal from the manual switch.~~

Claim 25 (New): The bicycle headlamp according to claim 1, wherein the predetermined speed is 15 km/h.

Claim 26 (New): The bicycle headlamp electrical circuit according to claim 22, wherein the predetermined speed is 15 km/h.